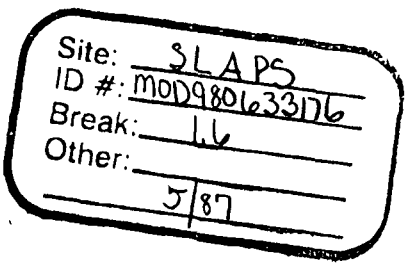
Appendix A.1



FINAL FISH AND WILDLIFE COORDINATION ACT REPORT

Coldwater Creek
Flood Control Project
St. Louis, County, Missouri
May, 1987

Dr. Mamie A. Parker and Richard Szlemp
U.S. FISH AND WILDLIFE SERVICE
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Prepared
for
U.S. Army Corps of Engineers
St. Louis District
St. Louis, Missouri

Prepared
by
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and
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Introduction

This report consitutes the final Fish and Wildlife Coordination Act (FWCA) report for the Coldwater Creek, Missouri Flood Control Project, conducted by the St. Louis District, U.S. Army Corps of Engineers. This report was prepared under the authority of and in accordance with the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4327), the Endangered Species Act of 1973, (16 U.S.C. 1531-1543), as amended, and the U.S. Fish and Wildlife Service Mitigation Policy.

The study was authorized by the United States Congress as part of the St. Louis Metropolitan Area, Missouri and Illinois Study. Study authorities that apply to Coldwater Creek include United States Senate Public Works Committee Resolutions dated October 4, 1966, July 15, 1970, and October 2, 1972, and United States House of Representative Public Works Committee Resolutions dated July 29, 1971, and October 12, 1972.

The St. Louis District completed a reconnaissance study of flooding and related problems and opportunities in the Coldwater Creek watershed in September, 1981. That report indicated that there were economically feasible alternatives to protecting the area from flood damages. In addition, the area has significant environmental and recreational problems and opportunities. Therefore, further study of the area was recommended by the District Engineer.

The Fish and Wildlife Service (Service) provided the St. Louis District with a Planning Aid Letter on August 14, 1981. The Service conducted a biological inventory on aquatic and terrestrial resources in the area and submitted a report on the same to the St. Louis District during August, 1981. The draft FWCA report was submitted to the District in March, 1986. Correspondence regarding Federally Threatened and Endangered Species is discussed in the Endangered Species section of this report.

Project Alternatives

In addition to the No Action alternative, the St. Louis District, Corps of Engineers developed two plans. A display of the features in the plans is shown in tabular form in Table 1. The following features are common to both of these plans.

Table 1. St. Louis District, Corps of Engineers
Potential Channel Modification for Coldwater Creek

Channel Reach	Feature	
	Plan 1	Plan 2
1.63		Channel widened and five 8-foot diameter tunnels through railroad embankment
1.64-7.83	Clearing and snagging	
5.86-7.83		10-foot strip of land on each side of channel
7.83-13.80	Picnic area and recreational trail	Picnic area and recreational trail
10.35-10.45	Small levee	Small levee
13.80-17.68	Channel widened	Channel widened

Table 2. Taxonomic groups and common name of benthos organisms collected in Coldwater Creek. St. Louis County, Missouri. 1981

Group	Common Name
Annelidea	
Hirudinea	
Rhynchobdellida	
Golssiphonidae	Leeches
Piscicolidae	Leeches
Oligochaeta	
Plesiopora	
Tubificidae	Aquatic earthworms
Arthropoda	
Crustacea	
Decapoda	
Orconectes	Fresh water crayfish
Isopoda	
Asellota	Fresh water sowbugs
Insecta	
Coleoptera	
Chrysomelidae	Leaf beetles
Diptera	
Chironomidae	Midges
Anthomydiae	Root Maggot flies
Tabanidae	Horse flies
Tetanoceratidae	March flies
Ephemeroptera	
Caenidae	Mayflies
Hemiptera	
Corixidae	Water boatman
Galestocoridae	Toad bugs
Neuroptera	
Corydalidae	Dobsonflies
Odonata	
Libellulidae	Dragonflies
Mollusca	
Gastropoda	
Basommatophera	
Ancylidae	Limpets
Physidae	Pouch snails

Table 3. Taxonomic groups and common names of fish collected in Coldwater Creek.

Group	Common Name
Cypriniformes	
Cyprinidae	Golden shiner
	Red shiner
	Fathead minnow
	Carp
Ictaluridae	Black bullhead
Perciformes	
Centrarchidae	Bluegill

Common amphibians include the chorus frog, cricket frog, spring peeper, bull frog, and gray tree frog, Fowler's and American toads, the small-mouthed, spotted, and eastern tiger salamanders.

Some of the reptiles present are the eastern box turtle, five-lined skink, fence lizard, garter snake, and black rat snake.

These marginal quality of forested habitats are utilized by many Missouri urbanites participating in nature oriented activities. A 1980 survey by a Missouri Department of Conservation contractor indicated that feeding or watching birds and other wildlife near their homes, photographing wildlife, wild flowers, trees or other natural things, and hiking are the leisure pursuits most enjoyed by approximately one fourth of the urban adults in the state.

Endangered Species Comments

To facilitate compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal agencies are required to obtain from the Fish and Wildlife Service information concerning any species, listed or proposed to be listed, which may be present in the area of a proposed action. Therefore, we are furnishing you the following list of species which may be present in the concerned area:

Endangered
bald eagle (Haliaeetus leucocephalus)

There is no designated critical habitat in the project area at this time.

The scope and nature of the subject project indicates that diurnal perches, roost sites, food sources, or other preferred habitat will not be affected. Therefore, the project will not affect the bald eagle or the gray bat. This precludes the need for further action on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. Should this project be modified or new information indicates endangered species may be affected, consultation should be reinitiated.

Fish and Wildlife Resources with Project Conditions

The selected alternative, Plan 2, involves Coldwater Creek in several locations. Concrete-lined channels are proposed at bridge crossings. A small levee with a maximun height of 5 feet that would protect 4 historic buildings is also included in the plan. In appropriate channel segments a

The widening of the channel would require the removal of the remaining narrow corridors of vegetation adjacent to the stream. This would cause some disruption of habitat for small mammals and other ground nesting species, remove escape and winter cover, interrupt travel lanes and destroy food sources for some wildlife species. Due to the scarcity of food and cover in the Coldwater Creek watershed, these species cannot relocate temporarily and would be in direct competition for food and cover with existing inhabitants. When possible, stream widening should be limited to one bank of Coldwater Creek, preferably the side where the least amount of trees are present. Wildlife habitat could be partially restored and the scenic nature of the channel improved by adding plantings favorable to wildlife along the channel. This would also aid in reducing soil erosion.

Aquatic communities, particularly the benthic community will suffer as a result of streambank and instream habitat degradation. Channel modification would also cause disruption in fish territoriality and orientation. Additionally, toxic chemicals that were bound to bottom sediments may be disturbed during the construction phase. Channel work should be scheduled during periods of low stream flows.

CONCLUSION

While we have stated that overall habitat losses will not be great in some reaches of Coldwater Creek, habitat losses will undoubtedly occur if the project is implemented. The Service's major goal for this project is to ensure, in accordance with the provisions of the Fish and Wildlife Coordination Act, that "...wildlife conservation shall receive equal consideration and be coordinated with other features of water resource development programs...". In our March 1986 draft FWCA we stated that this goal could be met through the inclusion of the following recommendations:

1. Stream widening should be limited to one bank of Coldwater Creek, where possible, preferably the bank with the least amount of vegetation. This would reduce the loss of riparian habitat and provide a continued source of habitat for wildlife. Fish and wildlife agencies should be contacted to obtain site specific inform ation in vegetative clearing.

2. Construction and maintenance of the enlarged channel should occur during the low flow stages.

3. Those areas adjacent to the channel should be planted with species that are beneficial to wildlife. This would provide wildlife food and

REFERENCES

Urban Interest in Wildlife, Opinion Research Division, Fleishman-Hillard, Inc. for the Missouri Department of Conservation, 1980.

Coldwater Creek, Missouri Reconnaissance Report, U.S. Army Corps of Engineers, St. Louis District, 1981.

Aquatic Biological Inventory, Coldwater Creek, St. Louis, Missouri. Tom Nash. U.S. Fish and Wildlife Service, 1982.